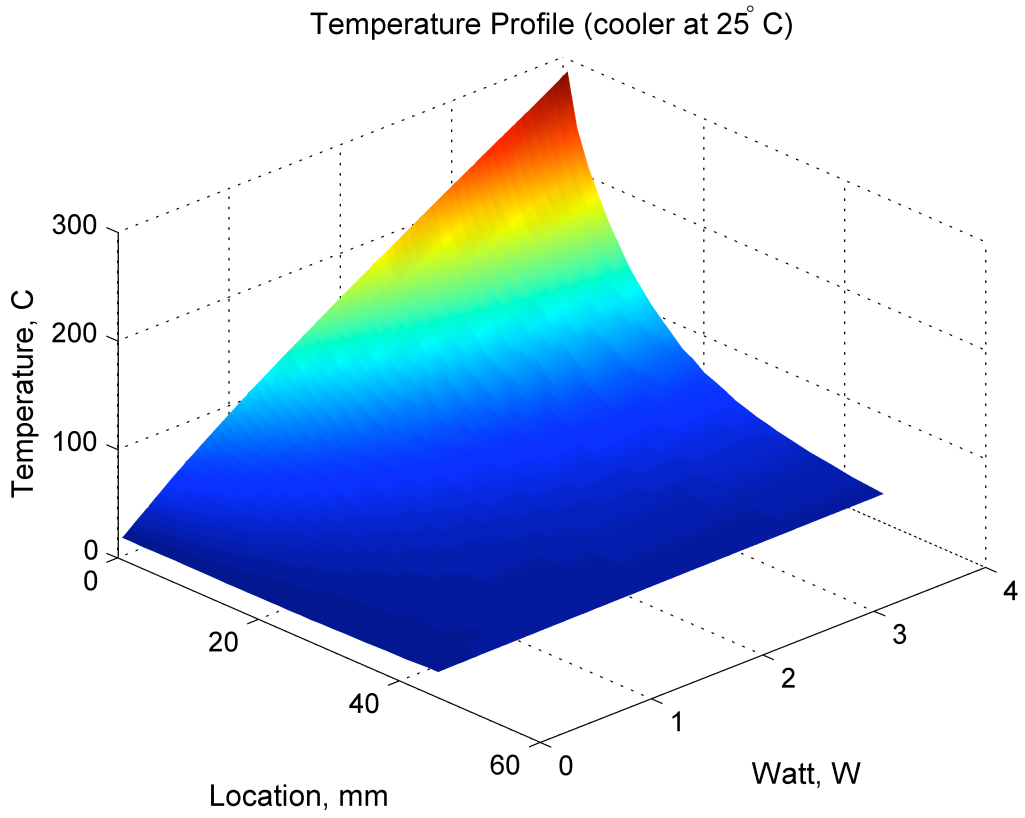
ISS and Human Research Project Office Highlights
May 7, 2010

ISS Research Program

CVB Dry module operations on the ISS.

The Constrained Vapor Bubble (CVB) 40 mm dry module was operated on the International Space Station (ISS) from April 26 to April 30, 2010. In the approximately 112 hours of operation, all the science objectives were fulfilled. The original test matrix was completed and an additional run was performed giving us excellent calibration characteristics. A maximum heater power of 4.0 W was supplied to the heater, and the cooler was kept at 25 C, 20.5 C and -5 C during the three runs. This allowed us to isolate the effects or radiation from the surface of the cuvette and conduction through the material of cuvette. This data will be used to determine such parameters as heat loss from the heater, effectiveness of the cooler circuit, total radiation from the heat pipe surface etc. Since the data was recorded at high temporal resolutions, it will also be used to determine the transient characteristics of the system. Preliminary analysis of the data suggests that it is accurate and consistent with our expectations. (POC: RET/David F. Chao, (216) 433-8320, MAH/Ronald Sicker, (216) 433-6498).



Additional Materials International Space Station Experiment 8 (MISSE 8) Flight Samples.
At the request of the MISSE 8 principal investigator, Phil Jenkins of the Naval Research Laboratory, 37 additional passive samples have been prepared, pre-flight characterized, and submitted for possible inclusion on MISSE 8. These samples were requested as extra space has become available on the ram, wake and zenith surfaces of MISSE 8. The samples submitted will be characterized post-flight for either atomic oxygen erosion yield or tensile property characterization. A total of 56 samples have been prepared and sent from the Space Environment and Experiments Branch for possible inclusion in MISSE 8. This work is supported by the International Space Station Research Project. (POC: RES/Kim K. de Groh, (216) 433-2297)

Human Research Program

IVGEN experiment conducts ISS flight operations.
The IntraVenous fluid GENeration (IVGEN) experiment conducted ISS flight operations on May 4 and 5, 2010. The team overcame some unexpected commanding challenges and finished operations on day 2 ahead of schedule. Downlinked data looked nominal, but a final verdict on success or failure cannot be made until STS-132 returns samples and they are analyzed at a laboratory meeting United States Pharmacopeia (USP) standards.
(POC: MAH/DeVon Griffin, (216) 433-8109)

HRP personnel assess software application potential.
On April 27, 2010 Dr. Jerry Myers traveled to Johnson Space Center (JSC) to participate in the demonstration and evaluation of the SANTOS – Virtual Soldier simulation software environment. After the demonstration, Dr. Myers and the Digital Astronaut team met with the SANTOS creators to assess the software's application potential in the NASA Human Research Program. A visit with the SANTOS team at the University of Iowa was scheduled for Mid-June.
(POC: MAH/Jerry Myers, (216) 433-2864)